

REMARKS

Applicants would like to take this opportunity to thank Examiner Koenig for granting a personal interview on October 7, 2003, with Applicants' attorney and agent. Claims 1-145 are pending. By this amendment, the specification and claims 1, 23, 37, 45, 62, 80, 104, 110, 118, and 144 are amended. Claims 16, 19, 99, 100, 105, and 106 have been cancelled. No new matter is introduced. The amendments to the claims find support in the specification at least on page 50, line 23 – page 51, line 13 and Figure 12b. Reconsideration and allowance of the claims in view of the above-amendments and the remarks that follow are respectfully requested.

I. Priority

The examiner alleges that claims 41 and 114 recite a “direct satellite broadcast system,” but there is no support in the specification for the term. During the interview, the Examiner indicated that he objected to the term “direct satellite broadcast system” because of its implication with DIRECTV. Applicants submit that the term “direct satellite broadcast system,” is used within the meaning of the term “backyard system,” which is disclosed in US Patent No. 5,990,927 (the ‘927 patent), which is incorporated by reference. The “backyard system” allows a subscriber to use backyard satellite systems to received packaged television services (the ‘927 patent, col. 42, lines 30-55). As agreed by the Examiner during the interview, the “direct satellite broadcast system” is supported at least to the extent described in the ‘927 patent and therefore, should have the priority date of the ‘927 patent, i.e., December 2, 1993.

II. Claim rejections under 35 U.S.C. §112, first paragraph

Claims 16-19, 99, 100, 105, and 106 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement for reasons stated on pages 3-4 of the Office Action.

Claims 16, 19, 99, 100, 105, and 106 have been canceled and the rejection of these claims is rendered moot. Applicants respectfully traverse the rejection on claims 17 and 18.

The Examiner alleges that one of ordinary skill in the art would not be enabled to receive modulated signals over a multipin connector or a DB9-DB25 connector. Applicants respectfully submit that modulated signals can be transmitted by a multipin connector. As detailed in the attached Declaration from Mr. Asmussen, an appropriately configured multi-pin connector as referenced in claims 17 and 18 could support a modulated signal. For example, there exist multipin connectors that support digital as well as modulated signals, as is shown in Exhibits 2

and 3 of the Declaration. It is also Mr. Asmissen's opinion that the technologies employed in the multipin connectors shown in Exhibits 2 and 3 were available in 1993, and that one skilled in the art would be able to configure such connectors for the purpose of transmitting modulated digital signals in early 90's. Accordingly, Applicants respectfully submit that claims 17 and 18 are enabled by the specification.

III. Claim rejections under 35 U.S.C. §103

Claims 1, 3-4, 8-11, 13-14, 16-19, 22-24, 27-28, 31-33, 37-39, 41-43, 45, 47, 51-56, 60, 62, 64, 68-71, 73-74, 78, 80, 82, 86-89, 91-92, 96, 98-108, 110-114, 116, 118, 120, 124-127, 129-130, 134, 137-138, and 141-142 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,192,999 to Graczyk et al. (hereafter Graczyk) in view of U.S. Patent 5,483,277 to Granger (hereafter Granger) and U.S. Patent 4,513,315 to Dekker et al. (hereafter Dekker). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all of the claim limitations. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP § 2142. Moreover, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art (see MPEP 2143.01; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)).

A. Independent claims

Independent claims 1, 23, 37, 45, 62, 80, 104, 110, and 118, as amended, all relate to a hardware upgrade that is operably connected to a set top terminal having a first tuner capable of selecting a digital audio signal. The hardware upgrade also contains a second tuner that tunes to a selected audio program and an audio processing circuitry to process digital audio signals.

Graczyk teaches a computer system capable of receiving television signals an audio signals. The computer system comprises a personal computer that includes a chassis and a monitor. In addition to regular personal computer hardware, the chassis further contains a television circuit and an audio multimedia circuit for receiving and processing audio data from the television circuit.

Dekker describes a community antenna television arrangement for the reception and distribution of TV signals and digital audio signals. The objective of Dekker is to optimize the overall transmission capacity (col. 1, lines 63-68), not to enhance the performance of CATV.

Granger describes a set top terminal with switchable narrow band filters that replace the expensive tuner. The narrow band filter is an indispensable part of the set top terminal.

Applicants respectfully submit that Graczyk, Dekker, and Granger, individually and in combination, do not teach or suggest a set top terminal having a first tuner capable of selecting a digital audio signal and a hardware upgrade having a second tuner that tunes to a selected audio program. For this reason alone, the claimed invention is not obvious over Graczyk, Dekker, and Granger.

The Examiner alleges that Graczyk teaches audio components to be used in conjunction with displaying television signals and audio circuits solely for receiving audio signals. However, the audio components and audio circuits described in Graczyk are integrated parts of the computer system. Graczyk suggest no desirability to separate these components/circuits from the other components of the computer system and assemble them into an upgrade card. In fact, since the audio multimedia circuit of Graczyk receives and processes audio data from the television circuit, remove the audio circuit would disable the complete system.

The Examiner also alleges that Graczyk teaches cards connected to a bus 300, which perform the functionality of the audio / video selection and which read on a hardware upgrade card operably connected to a set top terminal. Applicants respectfully disagree. Considered as a whole, the cards connected to bus 300 are part of an integrated design of Graczyk's invention. They serve as a necessity for Graczyk's system, not as an upgrade.

Dekker is directed to a community antenna television arrangement for the reception and distribution of TV signals and digital audio signals (abstract). Dekker focuses on techniques for optimizing the transmission capacity of the television arrangement (col. 1, lines 63-68). The Examiner alleges that Dekker teaches a tuning unit for receiving both television and separate digital audio channels. Applicants respectfully submit that Dekker provides no motivation or desirability and thus the obviousness of making the combination with Graczyk. Moreover, even if one skilled in the art combines Graczyk with Dekker, the end product would be an enhanced computer system capable of receiving television signals and audio signals, not an upgrade card for set top terminals.

The examiner further alleges that Granger teaches a hardware upgrade for a set top terminal. Applicants respectfully disagree. The switchable narrow band filters in Granger reflect a modular design of the set top terminal, i.e., a set top terminal having interchangeable filter modules. However, the filters are required to render the set top terminal functional. This is different from an upgrade card that improves the existing function of a set top terminal. In other word, the set top terminal of the present invention is functional without the upgrade card, while the set top terminal in Granger is not functional without a narrow band filter.

Taken together, applicants respectfully submit that Graczyk, Dekker, and Granger, alone or in combination, do not teach or suggest the invention recited in independent claims 1, 23, 37, 45, 62, 80, 104, 110, and 118.

B. Dependent Claims

If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and MPEP § 2143.03.

Claims 3-4, 8-11, 13-14, 17, 18, and 22 depend from claim 1. Claims 24, 27-28, 31-33, 98, 101, and 102 depend from claim 23. Claims 38-43 depend from claim 37. Claims 47, 51-56, and 60 depend from claim 45. Claims 64, 68-71, 73-74, 78, and 137-138 depend from claim 62. Claims 82, 86-92, 96, and 141-142 depend from claim 80. Claims 107 and 108 depend from claim 104. Claims 111-114 and 116 depend from claim 110. Claims 120, 124-130, and 134 depend from claim 118. As discussed above, claims 1, 23, 37, 45, 62, 80, 104, 110, and 118 are allowable. For this reason and the additional features they recite, claims 3-4, 8-11, 13-14, 17, 18, 22, 24, 27-28, 31-33, 38-43, 47, 51-56, 60, 64, 68-71, 73-74, 78, 82, 86-92, 96, 98, 101, 102, 105-108, 111-114, 116, 120, 124-130, 134, 137-138, and 141-142 are allowable. Claims 16, 19, 99, 100, 105 and 106 have been cancelled and, therefore, the rejection of these claims is rendered moot. Withdrawal of the rejection of claims 1, 3-4, 8-11, 13-14, 17, 18, 22-24, 27-28, 31-33, 37-43, 45-47, 51-56, 60, 62-64, 68-71, 73-74, 78, 80-82, 86-92, 96, 98, 101, 102, 104-108, 110-114, 116, 118-120, 124-130, 134, 137-138, and 141-142 under 35 U.S.C. § 103(a) is respectfully requested.

C. Other Rejections of Dependent Claims Under 35 U.S.C. § 103(a)

On page 10, the Office Action rejects claims 5, 6, 48, 49, 65, 66, 83, 84, 121 and 122 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk, Granger, and Dekker in view of

U.S. Patent 5,270,809 to Gammie et al. (hereafter Gammie). This rejection is respectfully traversed.

Claims 5-6 depend from claim 1. Claims 48-49 depend from claim 45. Claims 65-66 depend from claim 62. Claims 83-84 depend from claim 80. Claims 121-122 depend from claim 118. As discussed above, claims 1, 45, 62, 80 and 118 are allowable. Moreover, Gammie does not cure Graczyk, Granger, and Dekker of the defect described above. For at least these reasons and the additional features they recite, claims 5, 6, 48, 49, 65, 66, 83, 84, 121 and 122 are allowable. Withdrawal of the rejection of claims 5, 6, 48, 49, 65, 66, 83, 84, 121 and 122 under 35 U.S.C. § 103(a) is respectfully requested.

On page 10, the Office Action rejects claims 7, 50, 67, 85 and 123 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk, Granger, and Dekker in view of U.S. Patent 5,550,863 to Yurt et al. (hereafter Yurt). This rejection is respectfully traversed.

Claim 7 depends from claim 1. Claim 50 depends from claim 45. Claim 67 depends from claim 62. Claim 85 depends from claim 80. Claim 123 depends from claim 118. As discussed above, claims 1, 45, 62, 80 and 118 are allowable. Moreover, Yurt does not cure Graczyk, Granger, and Dekker of the defect described above. For at least these reasons and the additional features they recite, claims 7, 50, 67, 85 and 123 are allowable. Withdrawal of the rejection of claims 7, 50, 67, 85 and 123 under 35 U.S.C. § 103(a) is respectfully requested.

On page 11, the Office Action rejects claims 12, 15, 26, 27, 29, 57, 72, 75, 90, 93, 128, 131, 136, 139, 140 and 143 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk, Granger, and Dekker in view of U.S. Patent 5,410,326 to Goldstein (hereafter Goldstein). This rejection is respectfully traversed.

Claims 12 and 15 depend from claim 1. Claims 26, 27, and 29 depend from claim 23. Claim 57 depends from claim 45. Claims 72, 75, 90, 93, 140 and 143 depend from claim 80. Claims 128 and 131 depend from claim 118. Claims 136 and 139 depend from claim 62. As discussed above, claims 1, 23, 45, 62, 80 and 118 are allowable. Moreover, Goldstein does not cure Graczyk, Granger, and Dekker of the defect described above. For at least these reasons and the additional features they recite, claims 12, 15, 26, 27, 29, 57, 72, 75, 90, 93, 128, 131, 136, 139, 140 and 143 are allowable. Withdrawal of the rejection of claims 12, 15, 26, 27, 29, 57, 72, 75, 90, 93, 128, 131, 136, 139, 140 and 143 under 35 U.S.C. § 103(a) is respectfully requested.

On page 12, the Office Action rejects claims 20, 21, 30, 34, 42, 58, 76, 94, 115 and 132 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk, Granger, and Dekker in view of U.S. Patent 5,253,066 to Vogel (hereafter Vogel). This rejection is respectfully traversed.

Claims 20 and 21 depend from claim 1. Claims 30 and 34 depend from claim 23. Claim 42 depends from claim 37. Claim 58 depends from claim 45. Claim 76 depends from claim 62. Claim 94 depends from claim 80. Claim 115 depends from claim 110. Claim 132 depends from claim 118. As discussed above, claims 1, 23, 37, 45, 62, 80, 110 and 118 are allowable.

Moreover, Vogel does not cure Graczyk, Granger, and Dekker of the defect described above. For at least these reasons and the additional features they recite, claims 20, 21, 30, 34, 42, 58, 76, 94, 115 and 132 are allowable. Withdrawal of the rejection of claims 20, 21, 30, 34, 42, 58, 76, 94, 115 and 132 under 35 U.S.C. § 103(a) is respectfully requested.

On page 12, the Office Action rejects claims 79, 97, 103, 109, and 135 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk, Granger, and Dekker in view of U.S. Patent 5,327,554 to Palazzi et al. (hereafter Palazzi). This rejection is respectfully traversed.

Claim 103 depends from claim 23. Claim 79 depends from claim 62. Claim 97 depends from claim 80. Claim 109 depends from claim 104. Claim 135 depends from claim 118. As discussed above, claims 23, 62, 80, 104, and 118 are allowable. Moreover, Palazzi does not cure Graczyk, Granger, and Dekker of the defect described above. For at least these reasons and the additional features they recite, claims 79, 97, 103, 109, and 135 are allowable. Withdrawal of the rejection of claims 79, 97, 103, 109, and 135 under 35 U.S.C. § 103(a) is respectfully requested.

On page 13, the Office Action rejects claims 35, 59, 77, 95 and 133 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk, Granger, and Dekker in view of U.S. Patent 4,887,308 to Dutton (hereafter Dutton). This rejection is respectfully traversed.

Claim 35 depends from claim 23. Claim 59 depends from claim 45. Claim 77 depends from claim 62. Claim 95 depends from claim 80. Claim 133 depends from claim 118. As discussed above, claims 23, 45, 62, 80 and 118 are allowable. Moreover, Dutton does not cure Graczyk, Granger, and Dekker of the defect described above. For at least these reasons and the additional features they recite, claims 35, 59, 77, 95 and 133 are allowable. Withdrawal of the rejection of claims 35, 59, 77, 95 and 133 under 35 U.S.C. § 103(a) is respectfully requested.

On page 13, the Office Action rejects claims 144 and 145 under 35 U.S.C. § 103(a) as being unpatentable over Graczyk and Dekker in view of U.S. Patent 5,479,268 to Young et al. (hereafter Young). This rejection is respectfully traversed.

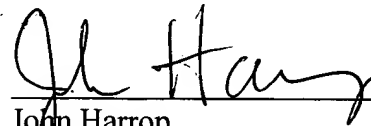
Independent claim 144, as amended, is directed to a hardware upgrade for a set top terminal having a first tuner capable of selecting a digital audio signal. The hardware upgrade comprises, an audio processing circuitry having a second tuner that tunes to a selected audio program. As discussed above, Graczyk and Dekker, individually and in combination, fail to teach or suggest the hardware upgrade of claim 144. Accordingly, Applicants respectfully submit that claim 144 is not obvious over Graczyk and Dekker. Applicants further submit that claim 145 is patentable because it depends from claim 144 and because it recites additional patentable subject matter. Withdrawal of the rejection of claims 144 and 145 under 35 U.S.C. § 103(a) is respectfully requested.

IV. SUMMARY

For at least the reasons set forth above, applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further is desired in order to place the application in even better condition for allowance, the Examiner is invited to contact applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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Attachment: Declaration from Michael Asmussen